



## GE Silicones

### MATERIAL SAFETY DATA SHEET

GE5201 12C-Crtrg (0.730 LB-0.331 KG)

Trade Name                      Silicone Rubber Sealant

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufactured By                      GES Waterford Plant  
   260 Hudson River Rd  
   Waterford NY 12188

Revised:                                      03/23/2004

Preparer:                                    PRODUCT STEWARDSHIP COMPLIANCE AND STANDARDS

Chemical Family/Use:                  Sealant

Formula:                                    Mixture

CHEMTREC                                1-800-424-9300

##### HMIS

Flammability	0	REACTIVITY	0	Health	1
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##### NFPA

Flammability	0	REACTIVITY	0	Health	1
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#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>PRODUCT COMPOSITION</u>	<u>CAS REG NO.</u>	<u>WGT. %</u>
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##### A. HAZARDOUS

Hexamethyldisilazane	999-97-3	1 - 5 %
Octamethylcyclotetrasiloxane	556-67-2	1 - 5 %
Methyltrimethoxysilane	1185-55-3	1 - 5 %

##### B. NON-HAZARDOUS

SILOXANES & SILICONES, DIMETHYL-POLYMERS W/ METHYLSILSESQUIOXANES	68554-67-6	1 - 5 %
Treated fumed silica	68583-49-3	10 - 30 %
Polydimethylsiloxane	63148-62-9	10 - 30 %
Methoxypolydimethylsiloxane	68037-58-1	60 - 90 %

#### 3. HAZARDS IDENTIFICATION

##### EMERGENCY OVERVIEW

WARNING! Irritating to eyes, respiratory system and skin. May be harmful if swallowed. Adverse liver and reproductive effects reported in animals.



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Solid Translucent MILD AMINE

#### **POTENTIAL HEALTH EFFECTS**

##### **INGESTION**

May be harmful if swallowed.

##### **SKIN**

Skin irritation is possible after contact with the uncured product. Uncured product contact will irritate lips, gums and tongue.

##### **INHALATION**

Cause mild respiratory tract irritation. Applies in uncured state.

##### **EYES**

Eye irritation on contact with the uncured product.

##### **MEDICAL CONDITIONS AGGRAVATED**

None known.

##### **SUBCHRONIC (TARGET ORGAN )**

Reproductive hazard. May cause liver effects.

##### **CHRONIC EFFECTS / CARCINOGENICITY**

This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by NTP, IARC, or OSHA.

##### **ROUTES OF EXPOSURE**

dermal Eyes

##### **OTHER**

Methanol released during curing. Ammonia released during curing. This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300 degrees Fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. An MSDS for formaldehyde is available from GE Silicones. Additional information on the toxicological effects of this material or its ingredients can be found in Section 11 - Toxicological Information.

#### **4. FIRST AID MEASURES**

##### **INGESTION**

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.



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#### **SKIN**

To clean from skin, remove completely with a dry cloth or paper towel, before washing with detergent and water. Get medical attention if irritation persists.

#### **INHALATION**

If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention.

#### **EYES**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

#### **NOTE TO PHYSICIAN**

None known.

### **5. FIRE-FIGHTING MEASURES**

#### **FLASH POINT**

##### **METHOD:**

NA

##### **IGNITION TEMPERATURE**

Unknown

##### **FLAMMABLE LIMITS IN AIR - LOWER (%)**

NA

##### **FLAMMABLE LIMITS IN AIR - UPPER (%)**

NA

##### **SENSITIVITY TO MECHANICAL IMPACT:**

No

#### **SENSITIVITY TO STATIC DISCHARGE**

Sensitivity to static discharge is not expected.

#### **EXTINGUISHING MEDIA**

All standard firefighting media

#### **SPECIAL FIRE FIGHTING PROCEDURES**

Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

### **6. ACCIDENTAL RELEASE MEASURES**

#### **ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Wipe, scrape or soak up in an inert material and put in a container for disposal. Wash walking surfaces with detergent and water to reduce slipping hazard. Wear proper protective equipment as specified in the protective equipment section. Increase area ventilation.



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#### **7. HANDLING AND STORAGE**

##### **STORAGE**

##### **PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Use only in well-ventilated areas. Avoid contact with skin and eyes. Keep away from children. Remove contact lenses before using sealant. Do not handle lenses until all sealant has been cleaned from the fingertips, nails and cuticles. Residual sealant may remain on fingers for several days and transfer to lenses and cause severe eye irritation. Store away from heat, sources of ignition, and incompatibles.

#### **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

##### **ENGINEERING CONTROLS**

##### **RESPIRATORY PROTECTION**

If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29CFR 1910.134).

##### **PROTECTIVE GLOVES**

Cloth gloves.

##### **EYE AND FACE PROTECTION**

Safety glasses

##### **OTHER PROTECTIVE EQUIPMENT**

Wear suitable protective clothing and eye/face protection.

##### **Exposure Guidelines**

<b><u>Chemical</u></b>	<b><u>CAS REG NO.</u></b>	<b><u>ACGIH</u></b>	<b><u>OSHA</u></b>	<b><u>Supplier</u></b>
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#### **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>BOILING POINT - C &amp; F</b>	NA
<b>VAPOR PRESSURE (20 C) (MM HG)</b>	NA
<b>VAPOR DENSITY (AIR=1)</b>	
<b>FREEZING POINT</b>	NA
<b>MELTING POINT</b>	NA
<b>PHYSICAL STATE</b>	Solid
<b>ODOR</b>	MILD AMINE



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<b>COLOR</b>	Translucent
<b>EVAPORATION RATE (BUTYL ACETATE=1)</b>	
<b>SPECIFIC GRAVITY (WATER=1)</b>	1.02
<b>DENSITY (KG/M3)</b>	1,027
<b>ACID / ALKALINITY (MEQ/G)</b>	NA
<b>pH</b>	NA
<b>VOLATILE ORGANIC CONTENT (VOL)</b>	NA
<b>SOLUBILITY IN WATER (20 C)</b>	Insoluble
<b>SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT)</b>	Soluble in toluene
<b>VOC EXCL. H2O &amp; EXEMPTS (G/L)</b>	33.00

## **10. STABILITY AND REACTIVITY**

### **STABILITY**

Stable

### **HAZARDOUS POLYMERIZATION**

Will not occur

### **HAZARDOUS THERMAL DECOMPOSITION / COMBUSTION PRODUCTS**

Methanolcarbon dioxide (CO2)formaldehydeCarbon monoxideammoniaSilicon dioxide.Oxides of nitrogen.

### **INCOMPATIBILITY (MATERIALS TO AVOID)**

None known.

### **CONDITIONS TO AVOID**

None known.

## **11. TOXICOLOGICAL INFORMATION**

### **ACUTE ORAL**

Unknown

### **ACUTE DERMAL**

Unknown

### **ACUTE INHALATION**

Unknown

### **OTHER:**

Octamethylcyclotetrasiloxane Ingestion: Rodents given large doses via oral gavage of



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octamethylcyclotetrasiloxane (1600 mg/kg day, 14 days) developed increased liver weights relative to unexposed control animals due to hepatocellular hyperplasia (increased number of liver cells which appear normal) as well as hypertrophy (increased cell size). Inhalation: In inhalation studies, laboratory rodents exposed to octamethylcyclotetrasiloxane (300 ppm five days week, 90 days) developed increased liver weights in female animals relative to unexposed control animals. When the exposure was stopped, liver weights returned to normal. Microscopic examination of the liver cells did not show any evidence of pathology. Inhalation studies utilizing laboratory rabbits and guinea pigs showed no effects on liver weights. Inhalation exposures typical of industrial usage (5-10 ppm) showed no toxic effects in rodents. Range finding reproductive studies were conducted (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) with octamethylcyclotetrasiloxane (D4). Rats were exposed to 70 and 700 ppm. In the 700 ppm group, there was a statistically significant reduction in mean litter size and in implantation sites. No D4 related clinical signs were observed in the pups and no exposure related pathological findings were found. Interim results from a two generation reproductive study in rats exposed to 500 and 700 ppm D4 (whole body inhalation, 70 days prior to mating, through mating, gestation and lactation) resulted in a statistically significant decrease in live mean litter size as well as extended periods of off-spring delivery (dystocia). These results were not observed at the 70 and 300 ppm dosing levels. Preliminary results from an ongoing 24-month combined chronic/ongogenicity study in rats exposed to 10, 30, 150, or 700 ppm D4 showed test-article related effects in the kidney (male and female) and uterus of rats exposed for 12 to 24 months. These effects include increased kidney weight and severity of chronic nephropathy, increased uterine weight, increased incidence of endometrial cell hyperplasia, and an increased incidence of endometrial adenomas. All of these effects ere limited to the 700 ppm exposure group. The relevance of these data to humans is unclear. Further studies are ongoing. In developmental toxicity studies, rats and rabbits were exposed to octamethylcyclotetrasiloxane at concentrations up to 700 ppm and 500 ppm respectively. No tetragenic effects (birth defects) were observed in either study.

**SENSITIZATION**

no data available

**SKIN IRRITATION**

no data available

**EYE IRRITATION**

no data available

**MUTAGENICITY**

Unknown

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGY**

no data available

**CHEMICAL FATE**



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no data available

#### **DISTRIBUTION**

### **13. DISPOSAL CONSIDERATIONS**

#### **DISPOSAL METHOD**

Disposal should be made in accordance with federal, state and local regulations.

### **14. TRANSPORT INFORMATION**

**Not Regulated if Section is Blank**

### **15. REGULATORY INFORMATION**

#### **US Regulatory Information**

##### **CERCLA**

##### **PRODUCT COMPOSITION**

##### **Chemical**

##### **CERCLA Reportable Quantity**

**CLEAN AIR ACT**

**CLEAN WATER ACT**

**SARA SECTION 302**

##### **SARA (311,312) HAZARD CLASS**

Acute Health Hazard

Chronic Health Hazard

**SARA (313) CHEMICALS**



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#### **Canadian Regulatory Information**

**WHMIS HAZARD CLASS**

#### **OTHER:**

**SCHDLE B/HTSUS    3214.10.0010 Mastics based on rubber**

**ECCN:    EAR99**

#### **CALIFORNIA PROPOSITION 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

### **16. OTHER INFORMATION**

#### **OTHER**

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate..... C = ceiling limit NEGL = negligible EST = estimated NF = none found NA = not applicable UNKN = unknown NE = none established REC = recommended ND = none determined V = recommended by vendor By-product = reaction by-product; TSCA inventory status not required under 40 CFR part 720.30(h-2) SKN = skin TS = trade secret R = recommended MST = mist ST = short term exposure limit NT = not tested ppm = parts per million ppb = parts per billion .....